

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A method of validating a request in connection with a content management system having a library server storing an item and a resource manager storing an object associated with the item, said method comprising:
in response to receiving a request that affects the item, recording the request in a library server transaction table of the library server, the item comprising an identifier that identifies a location of the object in the resource manager which is external to the library server;
identifying a version of the item;
determining whether the request affects the object associated with the item, the object comprising a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library;
identifying a version of the object in response to determining that the request affects the object, by retrieving a timestamp and an identifier for the object;
determining whether the request is valid based on the version of the item and the version of the object; and
in response to determining that the request is not valid, rolling back the request by removing the entry for the request from the library server transaction table, A method of validating a request in connection with an interactive content database, said method comprising:
receiving a request that affects an item;
identifying a version of the item based on a first time;

determining whether the request affects an object associated with the item;
identifying a version of the object based on a second time when the request affects the object, wherein identifying the version of the object comprises retrieving a timestamp and an identifier for the object;
completing the request based on the version of the item and the version of the object; and
when the request is found invalid, rolling back the request,
wherein the item comprises a library identifier to a managed resource which is external to a library,
wherein the object comprises a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library, and
wherein the rolling back the request includes removing an entry for the request from a library server transaction table.

2. (original): The method of claim 1, wherein receiving the request comprises receiving a request for deleting the item.
3. (previously presented): The method of claim 1, wherein identifying the version of the item comprises retrieving a timestamp for the item.
4. (previously presented): The method of claim 1, wherein identifying the version of the item comprises retrieving the timestamp and an identifier for the item.
- 5-6. (canceled).

7. (currently amended): The method of claim 1, wherein determining whether the request is valid comprises~~completing the request based on the version of the item and the version of the object comprises:~~

determining whether the version of the item matches the version of the object; and
completing the request ~~when if~~ the versions of the item and object match.

8. (currently amended): The method of claim 1, wherein determining whether the request is valid~~completing the request based on the version of the item and the version of the object~~ comprises:

determining whether the version of the item is older than the version of the object; and
completing the request ~~when if~~ the version of the item is older than the version of the object.

9. (currently amended): ~~An apparatus for validating a request in connection with an interactive content database, said apparatus comprising:~~

~~means for receiving a request that affects an item;~~
~~means for identifying a version of the item based on a first time;~~
~~means for determining whether the request affects an object associated with the item;~~
~~means for identifying a version of the object based on a second time when the request affects the object;~~
~~means for completing the request based on the version of the item and the version of the object; and~~

~~means for, when the request is found invalid, rolling back the request,~~
~~wherein the item comprises a library identifier to a managed resource which is external to~~
~~a library, and the item is stored in at least one of a memory and a storage device,~~
~~wherein the object comprises a binary object which is stored in at least one of a file~~
~~system, a file server, a file archive, or a database separate from the library, and~~
~~wherein the rolling back the request includes removing an entry for the request from a~~
~~library-server-transaction table.~~

An apparatus for validating a request in connection with a content management system
having a library server storing an item and a resource manager storing an object associated with
the item, said apparatus comprising:

means for receiving a request that affects the item, and for recording the request in a
library server transaction table of the library server, the item comprising an identifier that
identifies a location of the object in the resource manager which is external to the library server;

means for identifying a version of the item;

means for determining whether the request affects the object associated with the item, the
object comprising a binary object which is stored in at least one of a file system, a file server, a
file archive, or a database separate from the library;

means for identifying a version of the object in response to determining that the request
affects the object, by retrieving a timestamp and an identifier for the object;

means for determining whether the request is valid based on the version of the item and
the version of the object; and

means for, in response to determining that the request is not valid, rolling back the
request by removing the entry for the request from the library server transaction table.

10. (currently amended): ~~An application program for validating a request in connection with an interactive content database, the application program stored on a computer readable medium, said program comprising:~~

~~program code for receiving a request that affects an item;~~

~~program code for identifying a version of the item based on a first time;~~

~~program code for determining whether the request affects an object associated with the item;~~

~~program code for identifying a version of the object based on a second time when the request affects the object;~~

~~program code for completing the request based on the version of the item and the version of the object; and~~

~~program code for, when the request is found invalid, rolling back the request;~~

~~wherein the item comprises a library identifier to a managed resource which is external to a library,~~

~~wherein the object comprises a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library, and~~

~~wherein the rolling back the request includes removing an entry for the request from a library server transaction table.~~

An application program for validating a request in connection with content management system having a library server storing an item and a resource manager storing an object associated with the item, said program comprising:

program code for receiving a request that affects the item, and for recording the request in a library server transaction table of the library server, the item comprising an identifier that identifies a location of the object in the resource manager which is external to the library server;

program code for identifying a version of the item;

program code for determining whether the request affects the object associated with the item, the object comprising a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library;

program code for identifying a version of the object in response to determining that the request affects the object, by retrieving a timestamp and an identifier for the object;

program code for determining whether the request is valid based on the version of the item and the version of the object; and

program code for, in response to determining that the request is not valid, rolling back the request by removing the entry for the request from the library server transaction table.

11. (original): The medium of claim 10, further comprising program code for receiving a request for deleting the item.

12. (original): The medium of claim 10, further comprising program code for retrieving a timestamp for the item.

13. (original): The medium of claim 10, further comprising program code for retrieving the timestamp and an identifier for the item.

14. (original): The medium of claim 10, further comprising program code for retrieving a timestamp for the object.

15. (original): The medium of claim 14, further comprising program code for retrieving the timestamp and an identifier for the object.

16. (currently amended): The medium of claim 10, further comprising:
program code for determining whether the version of the item matches the version of the object; and
program code for completing the request ~~when~~if the versions of the item and object match.

17. (currently amended): The medium of claim 10, further comprising:
program code for determining whether the version of the item is older than the version of the object; and
program code for completing the request ~~when~~if the version of the item is older than the version of the object.

18. (currently amended): A method of processing requests that delete an item in connection with a content management system having a library server storing an item and a resource manager storing an object associated with the item, said method comprising:

in response to receiving a request that deletes the item, recording the request in a library server transaction table of the library server, the item comprising an identifier that identifies a location of the object in the resource manager which is external to the library server;

identifying a first age of the item affected by the request;

determining whether the request affects the object associated with the item, the object comprising a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library

identifying a second age of the object in response to determining that the request affects the object;

determining whether the request is valid based on the first age and the second age;

selectively deleting the item and the object based on whether the first age of the item is greater than or equal to the second age of the object; and

in response to determining that the request is not valid, rolling back the request by removing the entry for the request from the library server transaction table.

A method of processing requests that delete an item in connection with an interactive content database, wherein the item includes an associated object, said method comprising:

receiving a request that deletes an item;

identifying a first age of the item affected by the request;

retrieving information indicating a second age of at least one associated object;

tracking and recording transaction attributes of the first age of the item and the second age of the at least one associated object;

~~selectively deleting the item and the at least one associated object based on whether the first age of the item is greater than or equal to the second age of the at least one associated object; and~~

~~when the request is found invalid, rolling back the request;~~

~~wherein the item comprises a library identifier to a managed resource which is external to a library;~~

~~wherein the object comprises a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library; and~~

~~wherein the rolling back the request includes removing an entry for the request from a library server transaction table.~~

19. (currently amended): An apparatus for processing requests that delete an item in connection with a content management system having a library server storing the item and a resource manager storing an object associated with the item, said apparatus comprising:

means for receiving a request that deletes the item, and for recording the request in a library server transaction table of the library server, the item comprising an identifier that identifies a location of the object in the resource manager which is external to the library server;

means for identifying a first age of the item affected by the request;

means for determining whether the request affects the object associated with the item, the object comprising a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library;

means for retrieving information indicating a second age of the object in response to determining that the request affects the object;

determining whether the request is valid based on the first age and the second age;
means for selectively deleting the item and the object based on whether the first age of
the item is greater than or equal to the second age of the object; and
means for, in response to determining that the request is not valid, rolling back the
request by removing the entry for the request from the library server transaction table.

An apparatus for processing requests that delete an item in connection with an interactive content database, wherein the item includes an associated object, said apparatus comprising:

means for receiving a request that deletes an item;

means for identifying a first age of the item affected by the request;

means for retrieving information indicating a second age of at least one associated object;

means for tracking and recording transaction attributes of the first age of the item and the second age of the at least one associated object;

means for selectively deleting the item and the at least one associated object based on whether the first age of the item is greater than or equal to the second age of the at least one associated object; and

means for, when the request is found invalid, rolling back the request,

wherein the item comprises a library identifier to a managed resource which is external to a library, and the item is stored in at least one of a memory and a storage device,

wherein the object comprises a binary object which is stored in at least one of a file system, a file server, a file archive, or a database separate from the library, and

wherein the rolling back the request includes removing an entry for the request from a library server transaction table.

20. (canceled).